South Missouri Water Quality Project

THE UPPER WHITE RIVER REVIEW

The Newsletter of the South Missouri Water Quality Project, a USDA-NRCS Water Quality Office
Providing Conservation Solutions To Non-Point Source Water Pollution.

Clear...Concise...and to the Non-Point

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Stewardship Compass by Steve Hefner

South Missouri Water Quality Project Team Leader

As a public servant with the USDA-NRCS, I visit many private properties in our region. Because we are a voluntary organization, this privilege has been extended at the request of willing private landowners who desire to utilize natural resources wisely. Whether you have recently acquired land or have owned a piece of property for some time, your current management of the land impacts its sustainability, productivity, and value.

Your land management decisions leave your mark on the future. As I consider my own family's farming operation, we certainly have benefited by historical conservation-based decisions. Terraces constructed on our Ozark farm in the 1940's have saved tons and tons of soil over the past 60 years. These old terraces, which I enjoyed playing on as a kid and took for granted as a teenager, now reveal the character of my grandfather – a man I never met. His conservation investment, built with a team of horses, has paid dividends for three generations while demonstrating his attitude toward land stewardship.

With farming, it seems as if you are always working toward where you would like to be. Effective conservation plans weave sound, proven techniques around available resources and landowner objectives – both short and long term. Any advice that includes good land stewardship will benefit not only the landowner, but the general public as well.

What will be your mark on the land? What type of legacy are you leaving for the future? If you need assistance in conservation planning, contact your local USDA Service Center. After all, the land out-lives us all.

Cooperative Conservation Partnership Initiative Grant Awarded

USDA recently awarded a national grant to conduct Rapid Watershed Assessments (RWA) in five Missouri watersheds. The Cooperative Conservation Partnership Initiative (CCPI) Grant will enhance on-going conservation efforts by prioritizing restoration needs based on current watershed conditions. The selected watersheds in Missouri have diverse characteristics, resource concerns, and histories of locally-led conservation. The watersheds selected include the Upper Black River, Current River, North Fabius River, North River Bobs Creek, and the Lower Missouri Crooked River. The South Missouri Water Quality Project will conduct the assessments for the Upper Black and Current River Watersheds. Preliminary work has already begun. Plans are to have the RWAs completed and released to the public by Fall 2007.

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USDA NRCS Natural Resources Conservation Service

Webster County Hires SALT Manager

Brent Kinser, Webster County SALT Manager

The Webster County Soil and Water Conservation District (SWCD) has a new Special Area Land Treatment (SALT) Manager, Brent Kinser.

Brent began his work in the Webster County SWCD office in August 2006 and manages the SALT project for the James River Watershed in Webster County.

In addition to his duties as SALT Manager, Brent provides technical assistance on other Soil and Water Conservation District projects.

Brent says his biggest challenge in the job is learning all the different programs and reporting systems. However, he enjoys the opportunity to get out and meet the people of the county and view firsthand the projects in which they are participating.

Brent is a sixth generation farmer and has farmed his whole life. He enjoys gigging and grabbing in his spare time.

When asked if he likes working in the agriculture field, he said, "Yes. I view this job as a chance to give back to the men and women who help feed the world."

New SWCD District Manager in Douglas County

"As an outreach project, Douglas County SWCD is making packets of educational information for Pre-K through 4th grade children and taking them to the schools."

Verna Willhaus

Verna Willhaus began serving as the Douglas County Soil and Water Conservation District Manager in May 2006.

Verna brings public service experience to the SWCD position having served previously in the Douglas County Health Department as a WIC Certifier.

Verna's responsibilities include the district accounting, payroll, cost-share data entry, newsletter mailings, no-till drill rentals, and roller rentals.

When asked what she enjoys most about working in an agricultural position, she responds, "Working with the community. My parents lived on a small farm, so I grew up on a farm."

Welcome Verna!

Christian County Hires SWCD Info - Ed Specialist

Kat Allen, Christian County Information Education Specialist

"I enjoy working with people who care for our natural resources," Kat Allen responded when questioned about her new position as the Christian County Information Education Specialist.

Kat will be providing Christian County landowners, teachers, and students with educational opportunities. Scheduling and coordinating events is challenging she admits, but she really likes the responsibility. "I enjoy the variety of tasks. One day I may be at a school giving a soil demonstration, and the next I may be creating a website or newsletter."

Kat began in the Christian County SWCD office in September 2006. She previously worked as a Public Service Assistant with the Missouri Department of Conservation following graduation from Missouri State University.

As an example of an upcoming trip she is coordinating, Kat said that during the month of November, she will be taking 35 Sparta High School students to Talking Rocks Caverns in Branson for one of two high school field trips she will be coordinating for Christian County schools.

Welcome Kat!

Christian County 319 Project Manager Working in Finley River Basin

Since April 2006 when it was officially awarded by the Department of Natural Resources to the Christian County SWCD, the Finley River 319 Project has been progressively working toward its goals of improving the water quality in the Finley River Watershed.

The four year project is designed to assist 3 to 40 acre landowners in addressing issues such as excessive sedimentation, nutrient loading, and inadequate buffering of streams within the watershed.

Leading the project is Project Manager, Justin Jenkins. A southeastern Oklahoma native, Jenkins grew up on a 300 acre farm and says he has always liked agriculture, the people, and the way of life.

The Finley watershed area is over 172,000 acres and crosses six county line boundaries to include parts of Stone, Christian, Greene, Webster, Douglas, and Wright counties. Justin has been instrumental in developing cooperation and partnerships with all county SWCD's involved, Natural Resources Conservation Service (NRCS), Missouri Department of Conservation (MDC), Missouri University Extension (MU), and local groups such as the James River Basin Partnership in Springfield. This collaboration will help ensure the success of the project and provide many avenues for landowner understanding and involvement.

Justin is currently working toward completing the project website in conjunction with the Christian County SWCD's website by December 2006. He is also planning a kickoff meeting for project landowners around April 2007, and completion of the Watershed Management Plan for the Finley by May 2007.

Justin says, "Meeting new people within the project area and helping them understand how we want to help them improve water quality in the watershed is what I like best about the job."

When asked what his biggest challenge is in the new job, Justin replied, "Documentation! It seems to be the biggest time consuming aspect of my job."

Welcome Justin!

Justin Jenkins, Christian County 319 Project Manager

"My goals for the project include workshops, field days, web site development, news releases, newsletters, informational mailings, and attendance at public events."

Justin Jenkins

Stone County SWCD Staff Additions

Krissy Chisam, a former Program Technician with Farm Service Agency, began her new position as Stone County SWCD District Manager in July 2006.

Krissy says, "I like working in the agricultural field. I enjoy it because we are able to provide technical and financial support to landowners and agricultural producers. Those producers provide so much for us in the form of production."

Her biggest challenge initially was that she was the only employee on staff and was responsible for organizing and setting up the office in addition to keeping the office open. She now has a part-time office assistant, Sarah Wray, who covers the office when she is off or working in the field.

In addition, she now has a contracted drill technician, JC Bowling, and is currently advertising for a district technician.

When asked if she has any upcoming plans, she shares her first goals are to get the office staffed and landowners serviced. Then she plans to focus on doing some outreach and getting into the schools and community.

Welcome Krissy, Sarah, and JC!

Krissy Chisam, Stone County District Manager

WHO Can Help Keep Water Clean?

EVERYBODY Can!

Everybody stand up! Now who do you think is big enough to help us keep our water clean? "Everybody," they squeal with the kind of enthusiasm only pre-school-aged children can muster. "We can all help by putting trash in a trash can!"

As the Earth Team volunteer leaves the classroom, young voices call out in unison, "Thank you for coming to our class." And then invariably a lone voice can be heard, "Can you come back again? That was fun!"

This scenario is happening over and over again within the Upper White River Basin as Earth Team Volunteers continue to teach fun, age-appropriate water quality lessons as part of the Early Childhood Education Program. The lessons target children 3 years old through third grade and cover several topics.

The program was developed in the spring of 2005 by SMWQ Project staff as an outreach education effort to reach multiple audiences within the watershed.

2006 Early Childhood Program

- **64 volunteers**
- **1,093 hours of service**
- **54 presentations**
- **30 facilities**
- **782 children**
- **7 communities**

Partnership agreements were developed with Missouri State University and Ozarks Technical Community College and students received academic credit for participation in the program.

The Early Childhood Education Program was featured in five publications during the year: the *Volunteer Voice*, a NRCS national online newsletter; the *Springfield News-Leader* newspaper; the *Ellington Reynolds County Courier* newspaper; the Ozarks Technical Community College *Eagle* newspaper; and the *Today's Farmer magazine*.

The program will continue in 2007 as requests for service continue to come from public and private schools, daycares, and Head Start facilities.

Earth Team Volunteers Provide Needed Service

(At Left) Amanda O'Neil, Earth Team Volunteer with the SMWQ Project Office, conducted water quality demonstrations for Pre-K through 6th grade students at the Christian Schools of Springfield's fall 2006 fair in Springfield, MO.

Volunteers contributed **1,912 hours of service** on various projects through the SMWQ Project Earth Team Program during fiscal year 2006.

James River 319 Grant Completed

This project began in 2001 and officially ended July 30, 2006. The objective was to address urban and rural non-point source pollution in the James River Basin. The project milestones included Best Management Practices (BMP) that demonstrated effective conservation and an active information education program.

The James River Basin Partnership sponsored and administered this highly successful project and was primarily responsible for the educational campaigns. As a cooperating partner, the NRCS coordinated the restoration component of this grant (Table 1). Many other conservation groups, such as SWCDs, MDC, DNR, and MU assisted with this project and were a major reason for its success.

New urban BMPs included septic tank maintenance and nutrient management plans for lawn fertilization. Urban Nutrient Management provides sound fertilizer recommendations for turf management that are based on current soil test information. The plans completed during this project will reduce potential phosphorus pollution (a major concern) by an estimated 3,373 lbs per year.

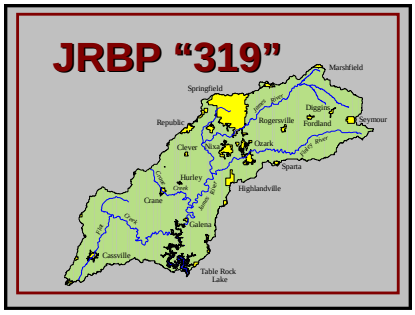
The Septic Maintenance BMP was designed to encourage home owners to periodically have phosphorus sludge removed and delivered to municipal waste treatment plants. This prevents the material from overflowing into septic lateral fields where it may contaminate surface and ground water.

Rural BMPs focused on livestock and woodland production issues. These practices improve forage and timber production by reducing sediment losses. About twenty miles of Riparian Corridor were enhanced through this project. These buffers will filter pollutants from upland runoff and reduce stream bank erosion.

Woodland Protection practices excluded livestock out of established timber. This prevents damage to the trees and increases ground cover, which in turn, reduces runoff and soil erosion. The grassland practices reduce sediment and nutrient losses by increasing the forage canopy and ground cover. Over 10,000 acres of pasture improvement translated to nearly 280,000 tons of soil loss reduction.

Rural Nutrient Management plans provide fertilizer recommendations to producers that enhance forage production and reduce nutrient losses due to runoff. Some plans included organic sources of nutrients as well as commercial fertilizer. Land application of the manure fully utilized nutrients for forages in an environmentally safe way. Twenty four plans were completed during the project. The demand for this BMP is increasing, partially due the importance of regional livestock production in southwest Missouri.

The well decommissioning and sink hole protection BMPs are similar in that they prevent surface contaminants from entering ground water systems. Many abandon wells were hand dug and are large enough to pose a threat to safety as well as a direct connection to ground water. Filling and sealing with appropriate materials eliminates both concerns. The Geological Survey of the Missouri DNR was particularly helpful.



Sink holes were protected by fencing and establishment of vegetative filter strips. The fencing eliminated direct access by livestock and surface drainage passes through the filter strips before reaching the sink hole. There are many more abandon wells and sinkholes needing protection throughout the Ozarks.

Restoration BMP	Amount Completed	% of Project Goal
• Urban Nutrient Management	313 (no.)	104%
• Septic Tank Maintenance	125 (no.)	250%
• Riparian Corridor	115,572 linear ft.	115.6%
• Planned Grazing System	5,633 acres	102%
• Pasture Improvement	10,422 acres	105%
• Rural Nutrient Management	24 (no.)	160%
• Woodland Protection	664 acres	133%
• Well Decommission	20 (no.)	111%
• Sinkhole Protection	3 (no.)	100%

Table 1. Restoration Progress Implemented.

Creek Corner

Shut-In Creek

Profiling the small streams of the Upper White River Basin

Location: Iron County, MO

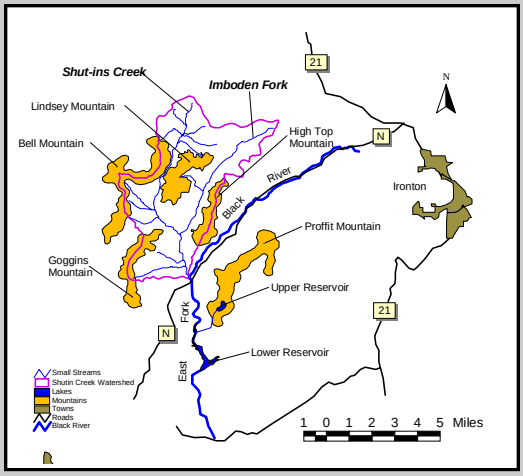
Drainage: 17,100 Acres

Receiving Stream: East Fork Black River

Shut-In Creek is a small stream that originates in Iron County and flows south into Reynolds County before joining with the East Fork of the Black River. Shut-In Creek has reaches where water passes through confined channels lined with igneous rock that consequently "shut-in" the stream. Because of its unique geology and scenic beauty, tourists historically visited this area via the St. Louis-Iron Mountain Rail.

Located in the St. Francois Knobs, this watershed contains some of the greatest relief in the Upper White River Watershed. Where the valleys are adjacent to steep mountains, relief can be as great as 900-1,000 feet. The drainage area associated with Shut-In Creek is approximately 17,100 acres. Radial drainage patterns are common.

The watershed is rural with a history of mining and timber production as the primary land uses. Because of the topography, livestock and grassland production has been limited to small valleys that have been cleared.



Conservation Dictionary Spanish Component Completed

In order to provide enhanced service, the South Missouri Water Quality Project has been designing an electronic conservation dictionary tool to assist USDA offices communicate with customers utilizing other languages. The Conservation Dictionary will define and translate common terms into other languages frequently utilized by local residents, namely Hmong and Spanish. Lauren Schuster, a student at Missouri State University, has completed the Spanish translation component of the Conservation Dictionary. Lauren dually enrolled in the University's Service Learning and the USDA's Earth Team Volunteer Program while working on the project. The Conservation Dictionary project has utilized volunteers to complete both the graphic design and language components. A release of the project is anticipated within the next few months.